

WHAT IS CLAIMED IS:

1. A remote maintenance system in which a maintenance center in charge of remote maintenance is connected to an apparatus-to-be-maintained by a communication channel and a maintenance monitor mechanism is installed in the apparatus-to-be-maintained or on the communication channel; wherein

the maintenance monitor mechanism comprises of

10 a maintenance control section that controls and carries out remote maintenance of the apparatus-to-be-maintained,

a maintenance history storage unit that records maintenance history, and

a display unit; and

15 the remote maintenance system acquires the date and time of the maintenance last carried out from the maintenance history storage unit and displays "Maintenance Not Problematic" if the difference between the date and time of the maintenance and the current date and time does not exceed a required maintenance interval or displays "Maintenance Problematic" if the difference exceeds the interval.

2. A remote maintenance system according to Claim 1, wherein

25 the date and time of the last maintenance out of those

that were carried out with no problem found concerning utilization of the apparatus is used instead of the date and time of the maintenance last carried out.

5 3. A remote maintenance system according to Claim 1, wherein
 the system contains different required maintenance
 intervals dependent upon the type of maintenance controlled
 by the maintenance control section, and switches the
 required maintenance interval corresponding to each type
10 of maintenance and displays "Maintenance Problematic/Not
 Problematic".

4. A remote maintenance system according to Claim 1, wherein
 the system displays restrictions concerning
15 utilization of the apparatus in case of "Maintenance
 Problematic".

5. A remote maintenance system according to Claim 1, wherein
 the system displays current status if maintenance
20 activity is being carried out in case of "Maintenance
 Problematic".

6. A remote maintenance system according to Claim 5, wherein,
 if any restriction concerning utilization of the
25 apparatus is caused, the system displays the restriction.

7. A remote maintenance system according to Claim 1, wherein,
at the request of an operator, the system judges whether
the difference exceeds the required maintenance interval
and displays accordingly.

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8. A remote maintenance system according to Claim 1, wherein
the system judges whether the battery in the maintenance
monitor mechanism or in the apparatus-to-be-maintained has
run down and displays the result of the judgment.

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9. A remote maintenance system according to Claim 1, wherein
the system judges whether the current date and time
of the timer in the maintenance monitor mechanism or in
the apparatus-to-be-maintained is correct and displays the
result of the judgment.

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10. A remote maintenance system according to Claim 1, wherein
the system is equipped with a GPS (Global Positioning
System) installed inside a mobile vehicle in charge of
20 maintenance activity, and transmits and displays the
current position data of the mobile vehicle from the GPS
to the display unit via the communication channel.

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11. A remote maintenance system according to Claim 1, wherein
25 the system calculates the hours required until the

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arrival of the mobile vehicle at the location of the apparatus-to-be-maintained, and transmits and displays the required hours on the display unit.

5 12. A remote maintenance system according to Claim 1, wherein
 the system is equipped with a maintenance history
 storage unit installed in the maintenance center, and,
 when the communication channel between the maintenance
 center and the apparatus-to-be-maintained is connected,
10 compares the maintenance history recorded in the
 maintenance history storage unit in the maintenance center
 at the last connection of the communication channel to the
 maintenance history recorded in the maintenance history
 storage unit in the maintenance monitor mechanism, and
15 carries out remote maintenance if the two records agree
 with each other or shuts down the communication channel
 if not.

20 13. A remote maintenance system according to Claim 1, wherein
 the system displays the maintenance histories in the
 maintenance history storage unit on the display unit.

25 14. A remote maintenance system according to Claim 1, wherein
 the system displays the required maintenance interval,
 current time of the timer, and maintenance history in the

maintenance history storage unit, either in strings of numeric numbers or the frequency distribution calculated per specified unit time or in a form of distribution histogram charting the strings of numeric numbers in time series,
5 on the display unit.

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